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Ticona

March 26, 2012
EIJ-027-12
TPI Project – 07082011-MISC

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Mr. David Eppler
Air Toxics and Inspection Coordination Branch
U.S.EPA Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

Subject: **Clean Air Act ("CAA") Section 114 Information Request – Supplemental Monthly Response**

Dear Mr. Eppler,

As agreed to in our meeting on December 20, 2011, Ticona Polymers, Inc. (TPI) is submitting the following update relating to the EPA's Section 114 Information Request. The team continues to work diligently on this project and will provide the next update to you by April 16, 2012.

MO3/MO4 Flares

The TPI team consisting of process control, project, production, process safety and environmental engineers has continued to evaluate options to address the heating value concerns that we discussed.

Since the March 5th report, TPI has made numerous attempts to contact both John Zink and Callidus Technologies. While we have been unsuccessful in engaging John Zink, we recently obtained approval to engage Callidus Technologies to conduct additional engineering work.

Since our last update, TPI's process engineers have been working with Callidus engineers on the previously-identified options to increase heating value. In particular, we have been assessing the amount of Natural Gas needed to increase the heating value and working through issues presented by adding these levels of natural gas.

We have calculated the amount of Natural Gas required to maintain a 300 Btu NHV at the MO-4 flare using a Hydrogen Btu value of 276 resulting in approximately 845,750 scfh. Increasing the Natural Gas flow as calculated with the Hydrogen value of 276 creates safety concerns. For example, the flare may not be tall enough to prevent the ground level radiant heat level from reaching 500 Btu. Additional concerns are centered on temperature impacts to the metallurgy at the flare tip and

the reliability and safe operation of the Natural Gas piping at the increased pressures required for higher volumes.

Given the challenges associated with reliably and safely operating a flare with this volume of natural gas, we continued to look for additional alternatives to increase the heating value. We have revisited the alternative of utilizing NHVcz with a Hydrogen Btu value of 1212 and believe that it is the preferred option under the circumstances.

Based on the latest formula options for calculating the NHVcz with a Hydrogen Btu value of 1212, the required Natural Gas needed would be approximately 377,338 scfh. This formula was the result of extensive research and testing by flare manufacturers and technical experts. This option would result in a greenhouse gas savings of 55% when compared to the option above.

Likewise, for the MO-3 flare, the engineers calculated the required Natural Gas to be approximately 311,734 scfh using the Hydrogen Btu value of 276. Using the alternative Hydrogen Btu value of 1212 the required Natural Gas would be 0.012 scfh. This alternate approach would result in a greenhouse gas savings of 99% when compared to the option above.

Utilizing the alternate hydrogen Btu value will address the heating value concerns for the MO-3&4 flares while avoiding potential safety and personnel exposure issues. Therefore, the TPI flare team requests approval to move forward with this option. In the interim, we will continue work on the engineering analysis and verification of piping and ancillary equipment sizing for the Natural Gas supply system to both flares.

Should you have any questions or need additional information, please contact Buddy Joyner at (361) 584-6104.

Sincerely,

Rudy Morales, Jr
Interim Site Director